

STAR GAZERS
SG 1540 – 5M
OCTOBER 5-11, 2015

“Planets Before Sunrise”

James: Hey there Star Gazers. I’m James Albury, Director of the Kika Silva Pla Planetarium in Gainesville, Florida.

Dean: And I’m Dean Regas, Astronomer from The Cincinnati Observatory. We’re here to help you find your way around the sky. Hey James, what do you call a grouping of three planets in the sky?

James: A conjunction? Oh boy, there’s a conjunction coming? There’s a conjunction coming!

Dean: Wait, hold it. Hold it! Stop the music! This week the planets won’t be super close together. They’ll be in the same area and all, but more like in a planet clump.

James: A planet traffic jam?

Dean: Exactly. And to add to the congestion, the brightest star in Leo the Lion will be hanging around, and the Moon will crash through this weekend.

James: Ooh, let’s check it out.

(STOP DROP)

James: What can I say, I love conjunctions. Anyway, we have our sky set up for Sunday morning October 8 at 6am looking east. Wow, you weren’t kidding about the planet clump! Look at all that!

Dean: I thought you’d like it. We have three planets, one bright star and a slim, waning crescent moon all lined up within 17 degrees of sky.

James: And you even got up in the early morning to see it.

Dean: Yes, I set my alarm but don’t expect me to dance.

James: So what do we have? The brightest planet must be Venus, our dazzling sister planet. No other star-like object is brighter from Earth.

Dean: Yep and the blue-white star next to Venus is Regulus, the heart of the constellation Leo the Lion. Venus and Regulus will be in conjunction on the mornings of October 8 and 9 and appear less than 3 degrees apart.

James: Lower in the sky, that other bright light must be the planet Jupiter, largest planet in our solar system.

Dean: You got it! And that faint little thing above Jupiter, if you look at it really carefully may look a little red.

James: That's Mars! Wow, what a planet-star-moon clump.

(STOP)
(In space)

James: The planets may look close together but they are not. When we look down on our solar system from outer space this week we can see where the planets really lie. From our rotating and revolving observatory we call Earth, Venus, Mars, and Jupiter appear clumped but Venus is about 52 million miles from Earth this week, Mars is almost 220 million miles away and Jupiter is a whopping 580 million miles.

Dean: That's nothing. Regulus, that bright star that is also in our clump, is 77.63 light years away from Earth. That is 456 trillion, 357 billion, 700 million, 767 thousand, 114 miles.

James: Yeah, that's far.

(STOP)

Dean: Okay, we're back on the Earth in the good ole USA on the morning of October 8 again. But our clump gets even more intriguing when we fast-forward time to October 9th at 6am.

James: The Moon has shifted in its orbit around the Earth and appears between Venus and Jupiter and not far from Mars.

Dean: Sweet! But alas, it is only temporary. On the morning of the 10th, the Moon will be an even slimmer waning crescent and hang just above the eastern horizon at 6am. Okay, I have one more surprise.

James: What is it?

Dean: As the morning rolls on and the Sun is just about to rise, look really low in the sky. You might, just might be able to make out the elusive planet Mercury among the rosy fingers of dawn.

James: Nice! And what happens if we go one more morning into the future? On October 11 – look – the Moon is just a thumbnail sliver of light and it will appear superclose to Mercury. What a great week to wake up early!

(STOP)
(Close-up ending)

James: So there you have it. A planet clump if I ever saw one. We'll have Venus next to the star Regulus

Dean: Jupiter next to Mars

James: And the Moon revolving through on Sunday and Monday morning.

Dean: Plus don't forget to try and find miniscule Mercury just before sunrise. You know James, we got a lot of fan mail about your dancing during the episodes about the last conjunction.

James: Really?

Dean: Some people wondered if you had a new nervous tic or if you just had to go to the space-bathroom.

James: Ha.

Dean: But most people dug your moves.

James: So, can I dance again for this planet clump?

Dean: Give the people what they want.

James: It's all there when you...

Both: Keep looking up!